

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/781,059  
Source: IFWO  
Date Processed by STIC: 06/16/2006

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

**<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>**> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06



IFWO

## RAW SEQUENCE LISTING

DATE: 06/16/2006

PATENT APPLICATION: US/10/781,059

TIME: 12:31:59

Input Set : E:\7326-132.TXT

Output Set: N:\CRF4\06162006\J781059.raw

4 <110> APPLICANT: Spyridon Artavanis-Tsakonas  
 5 Huilin Qi  
 6 Matthew Rand  
 8 <120> TITLE OF INVENTION: ACTIVATED FORMS OF NOTCH AND METHODS  
 9 BASED THEREON  
 11 <130> FILE REFERENCE: 7326-132-999  
 13 <140> CURRENT APPLICATION NUMBER: 10/781,059  
 14 <141> CURRENT FILING DATE: 2004-02-17  
 16 <150> PRIOR APPLICATION NUMBER: 09/121,457  
 17 <151> PRIOR FILING DATE: 1998-07-23  
 19 <150> PRIOR APPLICATION NUMBER: 08/899,232  
 20 <151> PRIOR FILING DATE: 1997-07-23  
 22 <160> NUMBER OF SEQ ID NOS: 4  
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 2471  
 28 <212> TYPE: PRT  
 29 <213> ORGANISM: Homo sapiens  
 31 <400> SEQUENCE: 1  
 32 Met Pro Ala Leu Arg Pro Ala Leu Leu Trp Ala Leu Leu Ala Leu Trp  
 33 1 5 10 15  
 34 Leu Cys Cys Ala Ala Pro Ala His Ala Leu Gln Cys Arg Asp Gly Tyr  
 35 20 25 30  
 36 Glu Pro Cys Val Asn Glu Gly Met Cys Val Thr Tyr His Asn Gly Thr  
 37 35 40 45  
 38 Gly Tyr Cys Lys Cys Pro Glu Gly Phe Leu Gly Glu Tyr Cys Gln His  
 39 50 55 60  
 40 Arg Asp Pro Cys Glu Lys Asn Arg Cys Gln Asn Gly Gly Thr Cys Val  
 41 65 70 75 80  
 42 Ala Gln Ala Met Leu Gly Lys Ala Thr Cys Arg Cys Ala Ser Gly Phe  
 43 85 90 95  
 44 Thr Gly Glu Asp Cys Gln Tyr Ser Thr Ser His Pro Cys Phe Val Ser  
 45 100 105 110  
 46 Arg Pro Cys Leu Asn Gly Gly Thr Cys His Met Leu Ser Arg Asp Thr  
 47 115 120 125  
 48 Tyr Glu Cys Thr Cys Gln Val Gly Phe Thr Gly Lys Glu Cys Gln Trp  
 49 130 135 140  
 50 Thr Asp Ala Cys Leu Ser His Pro Cys Ala Asn Gly Ser Thr Cys Thr  
 51 145 150 155 160  
 52 Thr Val Ala Asn Gln Phe Ser Cys Lys Cys Leu Thr Gly Phe Thr Gly  
 53 165 170 175  
 54 Gln Lys Cys Glu Thr Asp Val Asn Glu Cys Asp Ile Pro Gly His Cys  
 55 180 185 190

Does Not Comply  
 Corrected Diskette Needed  
 (pg-6, 8, 10)

## RAW SEQUENCE LISTING

DATE: 06/16/2006

PATENT APPLICATION: US/10/781,059

TIME: 12:31:59

Input Set : E:\7326-132.TXT

Output Set: N:\CRF4\06162006\J781059.raw

```

56 Gln His Gly Gly Thr Cys Leu Asn Leu Pro Gly Ser Tyr Gln Cys Gln
57      195      200      205
58 Cys Pro Gln Gly Phe Thr Gly Gln Tyr Cys Asp Ser Leu Tyr Val Pro
59      210      215      220
60 Cys Ala Pro Ser Pro Cys Val Asn Gly Gly Thr Cys Arg Gln Thr Gly
61 225      230      235      240
62 Asp Phe Thr Phe Glu Cys Asn Cys Leu Pro Gly Phe Glu Gly Ser Thr
63      245      250      255
64 Cys Glu Arg Asn Ile Asp Asp Cys Pro Asn His Arg Cys Gln Asn Gly
65      260      265      270
66 Gly Val Cys Val Asp Gly Val Asn Thr Tyr Asn Cys Arg Cys Pro Pro
67      275      280      285
68 Gln Trp Thr Gly Gln Phe Cys Thr Glu Asp Val Asp Glu Cys Leu Leu
69      290      295      300
70 Gln Pro Asn Ala Cys Gln Asn Gly Gly Thr Cys Ala Asn Arg Asn Gly
71 305      310      315      320
72 Gly Tyr Gly Cys Val Cys Val Asn Gly Trp Ser Gly Asp Asp Cys Ser
73      325      330      335
74 Glu Asn Ile Asp Asp Cys Ala Phe Ala Ser Cys Thr Pro Gly Ser Thr
75      340      345      350
76 Cys Ile Asp Arg Val Ala Ser Phe Ser Cys Met Cys Pro Glu Gly Lys
77      355      360      365
78 Ala Gly Leu Leu Cys His Leu Asp Asp Ala Cys Ile Ser Asn Pro Cys
79      370      375      380
80 His Lys Gly Ala Leu Cys Asp Thr Asn Pro Leu Asn Gly Gln Tyr Ile
81 385      390      395      400
82 Cys Thr Cys Pro Gln Gly Tyr Lys Gly Ala Asp Cys Thr Glu Asp Val
83      405      410      415
84 Asp Glu Cys Ala Met Ala Asn Ser Asn Pro Cys Glu His Ala Gly Lys
85      420      425      430
86 Cys Val Asn Thr Asp Gly Ala Phe His Cys Glu Cys Leu Lys Gly Tyr
87      435      440      445
88 Ala Gly Pro Arg Cys Glu Met Asp Ile Asn Glu Cys His Ser Asp Pro
89      450      455      460
90 Cys Gln Asn Asp Ala Thr Cys Leu Asp Lys Ile Gly Gly Phe Thr Cys
91 465      470      475      480
92 Leu Cys Met Pro Gly Phe Lys Gly Val His Cys Glu Leu Glu Ile Asn
93      485      490      495
94 Glu Cys Gln Ser Asn Pro Cys Val Asn Asn Gly Gln Cys Val Asp Lys
95      500      505      510
96 Val Asn Arg Phe Gln Cys Leu Cys Pro Pro Gly Phe Thr Gly Pro Val
97      515      520      525
98 Cys Gln Ile Asp Ile Asp Asp Cys Ser Ser Thr Pro Cys Leu Asn Gly
99      530      535      540
100 Ala Lys Cys Ile Asp His Pro Asn Gly Tyr Glu Cys Gln Cys Ala Thr
101 545      550      555      560
102 Gly Phe Thr Gly Val Leu Cys Glu Glu Asn Ile Asp Asn Cys Asp Pro
103      565      570      575
104 Asp Pro Cys His His Gly Gln Cys Gln Asp Gly Ile Asp Ser Tyr Thr

```

## RAW SEQUENCE LISTING

DATE: 06/16/2006

PATENT APPLICATION: US/10/781,059

TIME: 12:31:59

Input Set : E:\7326-132.TXT

Output Set: N:\CRF4\06162006\J781059.raw

```

105          580          585          590
106 Cys Ile Cys Asn Pro Gly Tyr Met Gly Ala Ile Cys Ser Asp Gln Ile
107          595          600          605
108 Asp Glu Cys Tyr Ser Ser Pro Cys Leu Asn Asp Gly Arg Cys Ile Asp
109          610          615          620
110 Leu Val Asn Gly Tyr Gln Cys Asn Cys Gln Pro Gly Thr Ser Gly Val
111 625          630          635          640
112 Asn Cys Glu Ile Asn Phe Asp Asp Cys Ala Ser Asn Pro Cys Ile His
113          645          650          655
114 Gly Ile Cys Met Asp Gly Ile Asn Arg Tyr Ser Cys Val Cys Ser Pro
115          660          665          670
116 Gly Phe Thr Gly Gln Arg Cys Asn Ile Asp Ile Asp Glu Cys Ala Ser
117          675          680          685
118 Asn Pro Cys Arg Lys Gly Ala Thr Cys Ile Asn Gly Val Asn Gly Phe
119          690          695          700
120 Arg Cys Ile Cys Pro Glu Gly Pro His His Pro Ser Cys Tyr Ser Gln
121 705          710          715          720
122 Val Asn Glu Cys Leu Ser Asn Pro Cys Ile His Gly Asn Cys Thr Gly
123          725          730          735
124 Gly Leu Ser Gly Tyr Lys Cys Leu Cys Asp Ala Gly Trp Val Gly Ile
125          740          745          750
126 Asn Cys Glu Val Asp Lys Asn Glu Cys Leu Ser Asn Pro Cys Gln Asn
127          755          760          765
128 Gly Gly Thr Cys Asp Asn Leu Val Asn Gly Tyr Arg Cys Thr Cys Lys
129          770          775          780
130 Lys Gly Phe Lys Gly Tyr Asn Cys Gln Val Asn Ile Asp Glu Cys Ala
131 785          790          795          800
132 Ser Asn Pro Cys Leu Asn Gln Gly Thr Cys Phe Asp Asp Ile Ser Gly
133          805          810          815
134 Tyr Thr Cys His Cys Val Leu Pro Tyr Thr Gly Lys Asn Cys Gln Thr
135          820          825          830
136 Val Leu Ala Pro Cys Ser Pro Asn Pro Cys Glu Asn Ala Ala Val Cys
137          835          840          845
138 Lys Glu Ser Pro Asn Phe Glu Ser Tyr Thr Cys Leu Cys Ala Pro Gly
139          850          855          860
140 Trp Gln Gly Gln Arg Cys Thr Ile Asp Ile Asp Glu Cys Ile Ser Lys
141 865          870          875          880
142 Pro Cys Met Asn His Gly Leu Cys His Asn Thr Gln Gly Ser Tyr Met
143          885          890          895
144 Cys Glu Cys Pro Pro Gly Phe Ser Gly Met Asp Cys Glu Glu Asp Ile
145          900          905          910
146 Asp Asp Cys Leu Ala Asn Pro Cys Gln Asn Gly Gly Ser Cys Met Asp
147          915          920          925
148 Gly Val Asn Thr Phe Ser Cys Leu Cys Leu Pro Gly Phe Thr Gly Asp
149          930          935          940
150 Lys Cys Gln Thr Asp Met Asn Glu Cys Leu Ser Glu Pro Cys Lys Asn
151 945          950          955          960
152 Gly Gly Thr Cys Ser Asp Tyr Val Asn Ser Tyr Thr Cys Lys Cys Gln
153          965          970          975

```

## RAW SEQUENCE LISTING

DATE: 06/16/2006

PATENT APPLICATION: US/10/781,059

TIME: 12:31:59

Input Set : E:\7326-132.TXT

Output Set: N:\CRF4\06162006\J781059.raw

```

154 Ala Gly Phe Asp Gly Val His Cys Glu Asn Asn Ile Asn Glu Cys Thr
155          980          985          990
156 Glu Ser Ser Cys Phe Asn Gly Gly Thr Cys Val Asp Gly Ile Asn Ser
157          995          1000          1005
158 Phe Ser Cys Leu Cys Pro Val Gly Phe Thr Gly Ser Phe Cys Leu His
159      1010          1015          1020
160 Glu Ile Asn Glu Cys Ser Ser His Pro Cys Leu Asn Glu Gly Thr Cys
161 1025          1030          1035          1040
162 Val Asp Gly Leu Gly Thr Tyr Arg Cys Ser Cys Pro Leu Gly Tyr Thr
163          1045          1050          1055
164 Gly Lys Asn Cys Gln Thr Leu Val Asn Leu Cys Ser Arg Ser Pro Cys
165          1060          1065          1070
166 Lys Asn Lys Gly Thr Cys Val Gln Lys Lys Ala Glu Ser Gln Cys Leu
167          1075          1080          1085
168 Cys Pro Ser Gly Trp Ala Gly Ala Tyr Cys Asp Val Pro Asn Val Ser
169      1090          1095          1100
170 Cys Asp Ile Ala Ala Ser Arg Arg Gly Val Leu Val Glu His Leu Cys
171 1105          1110          1115          1120
172 Gln His Ser Gly Val Cys Ile Asn Ala Gly Asn Thr His Tyr Cys Gln
173          1125          1130          1135
174 Cys Pro Leu Gly Tyr Thr Gly Ser Tyr Cys Glu Glu Gln Leu Asp Glu
175          1140          1145          1150
176 Cys Ala Ser Asn Pro Cys Gln His Gly Ala Thr Cys Ser Asp Phe Ile
177      1155          1160          1165
178 Gly Gly Tyr Arg Cys Glu Cys Val Pro Gly Tyr Gln Gly Val Asn Cys
179      1170          1175          1180
180 Glu Tyr Glu Val Asp Glu Cys Gln Asn Gln Pro Cys Gln Asn Gly Gly
181 1185          1190          1195          1200
182 Thr Cys Ile Asp Leu Val Asn His Phe Lys Cys Ser Cys Pro Pro Gly
183          1205          1210          1215
184 Thr Arg Gly Leu Leu Cys Glu Glu Asn Ile Asp Asp Cys Ala Arg Gly
185          1220          1225          1230
186 Pro His Cys Leu Asn Gly Gly Gln Cys Met Asp Arg Ile Gly Gly Tyr
187      1235          1240          1245
188 Ser Cys Arg Cys Leu Pro Gly Phe Ala Gly Glu Arg Cys Glu Gly Asp
189      1250          1255          1260
190 Ile Asn Glu Cys Leu Ser Asn Pro Cys Ser Ser Glu Gly Ser Leu Asp
191 1265          1270          1275          1280
192 Cys Ile Gln Leu Thr Asn Asp Tyr Leu Cys Val Cys Arg Ser Ala Phe
193          1285          1290          1295
194 Thr Gly Arg His Cys Glu Thr Phe Val Asp Val Cys Pro Gln Met Pro
195          1300          1305          1310
196 Cys Leu Asn Gly Gly Thr Cys Ala Val Ala Ser Asn Met Pro Asp Gly
197          1315          1320          1325
198 Phe Ile Cys Arg Cys Pro Pro Gly Phe Ser Gly Ala Arg Cys Gln Ser
199      1330          1335          1340
200 Ser Cys Gly Gln Val Lys Cys Arg Lys Gly Glu Gln Cys Val His Thr
201 1345          1350          1355          1360
202 Ala Ser Gly Pro Arg Cys Phe Cys Pro Ser Pro Arg Asp Cys Glu Ser

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/781,059

DATE: 06/16/2006

TIME: 12:31:59

Input Set : E:\7326-132.TXT

Output Set: N:\CRF4\06162006\J781059.raw

203		1365		1370		1375
204	Gly Cys Ala Ser Ser Pro Cys Gln His Gly Gly Ser Cys His Pro Gln					
205		1380		1385		1390
206	Arg Gln Pro Pro Tyr Tyr Ser Cys Gln Cys Ala Pro Pro Phe Ser Gly					
207		1395		1400		1405
208	Ser Arg Cys Glu Leu Tyr Thr Ala Pro Pro Ser Thr Pro Pro Ala Thr					
209		1410		1415		1420
210	Cys Leu Ser Gln Tyr Cys Ala Asp Lys Ala Arg Asp Gly Val Cys Asp					
211	1425		1430		1435	1440
212	Glu Ala Cys Asn Ser His Ala Cys Gln Trp Asp Gly Gly Asp Cys Ser					
213		1445		1450		1455
214	Leu Thr Met Glu Asn Pro Trp Ala Asn Cys Ser Ser Pro Leu Pro Cys					
215		1460		1465		1470
216	Trp Asp Tyr Ile Asn Asn Gln Cys Asp Glu Leu Cys Asn Thr Val Glu					
217		1475		1480		1485
218	Cys Leu Phe Asp Asn Phe Glu Cys Gln Gly Asn Ser Lys Thr Cys Lys					
219		1490		1495		1500
220	Tyr Asp Lys Tyr Cys Ala Asp His Phe Lys Asp Asn His Cys Asn Gln					
221	1505		1510		1515	1520
222	Gly Cys Asn Ser Glu Glu Cys Gly Trp Asp Gly Leu Asp Cys Ala Ala					
223		1525		1530		1535
224	Asp Gln Pro Glu Asn Leu Ala Glu Gly Thr Leu Val Ile Val Val Leu					
225		1540		1545		1550
226	Met Pro Pro Glu Gln Leu Leu Gln Asp Ala Arg Ser Phe Leu Arg Ala					
227		1555		1560		1565
228	Leu Gly Thr Leu Leu His Thr Asn Leu Arg Ile Lys Arg Asp Ser Gln					
229		1570		1575		1580
230	Gly Glu Leu Met Val Tyr Pro Tyr Tyr Gly Glu Lys Ser Ala Ala Met					
231	1585		1590		1595	1600
232	Lys Lys Gln Arg Met Thr Arg Arg Ser Leu Pro Gly Glu Gln Glu Gln					
233		1605		1610		1615
234	Glu Val Ala Gly Ser Lys Val Phe Leu Glu Ile Asp Asn Arg Gln Cys					
235		1620		1625		1630
236	Val Gln Asp Ser Asp His Cys Phe Lys Asn Thr Asp Ala Ala Ala Ala					
237		1635		1640		1645
238	Leu Leu Ala Ser His Ala Ile Gln Gly Thr Leu Ser Tyr Pro Leu Val					
239		1650		1655		1660
240	Ser Val Val Ser Glu Ser Leu Thr Pro Glu Arg Thr Gln Leu Leu Tyr					
241	1665		1670		1675	1680
242	Leu Leu Ala Val Ala Val Val Ile Ile Leu Phe Ile Ile Leu Leu Gly					
243		1685		1690		1695
244	Val Ile Met Ala Lys Arg Lys Arg Lys His Gly Ser Leu Trp Leu Pro					
245		1700		1705		1710
246	Glu Gly Phe Thr Leu Arg Arg Asp Ala Ser Asn His Lys Arg Arg Glu					
247		1715		1720		1725
248	Pro Val Gly Gln Asp Ala Val Gly Leu Lys Asn Leu Ser Val Gln Val					
249		1730		1735		1740
250	Ser Glu Ala Asn Leu Ile Gly Thr Gly Thr Ser Glu His Trp Val Asp					
251	1745		1750		1755	1760

<210> SEQ ID NO 2  
 <211> LENGTH: 2556  
 <212> TYPE: PRT  
 <213> ORGANISM: Homo sapiens  
 <220> FEATURE:  
 <221> NAME/KEY: VARIANT  
 <222> LOCATION: (875)...(875) → 'Val' at this Location  
 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid  
 <220> FEATURE:  
 <221> NAME/KEY: VARIANT  
 <222> LOCATION: (1747)...(1747) → 'Leu' at this Location  
 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid  
 <220> FEATURE:  
 <221> NAME/KEY: VARIANT  
 <222> LOCATION: (1771)...(1771) → 'Pro' at this location  
 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid  
 <400> SEQUENCE: 2

Met	Pro	Pro	Leu	Leu	Ala	Pro	Leu	Leu	Cys	Leu	Ala	Leu	Leu	Pro	Ala	1	5	10	15
Leu	Ala	Ala	Arg	Gly	Pro	Arg	Cys	Ser	Gln	Pro	Gly	Glu	Thr	Cys	Leu	20	25	30	
Asn	Gly	Gly	Lys	Cys	Glu	Ala	Ala	Asn	Gly	Thr	Glu	Ala	Cys	Val	Cys	35	40	45	
Gly	Gly	Ala	Phe	Val	Gly	Pro	Arg	Cys	Gln	Asp	Pro	Asn	Pro	Cys	Leu	50	55	60	
Ser	Thr	Pro	Cys	Lys	Asn	Ala	Gly	Thr	Cys	His	Val	Val	Asp	Arg	Arg	65	70	75	80
Gly	Val	Ala	Asp	Tyr	Ala	Cys	Ser	Cys	Ala	Leu	Gly	Phe	Ser	Gly	Pro	85	90	95	
Leu	Cys	Leu	Thr	Pro	Leu	Asp	Asn	Ala	Cys	Leu	Thr	Asn	Pro	Cys	Arg	100	105	110	
Asn	Gly	Gly	Thr	Cys	Asp	Leu	Leu	Thr	Leu	Thr	Glu	Tyr	Lys	Cys	Arg	115	120	125	
Cys	Pro	Pro	Gly	Trp	Ser	Gly	Lys	Ser	Cys	Gln	Gln	Ala	Asp	Pro	Cys	130	135	140	
Ala	Ser	Asn	Pro	Cys	Ala	Asn	Gly	Gly	Gln	Cys	Leu	Pro	Phe	Glu	Ala	145	150	155	160
Ser	Tyr	Ile	Cys	His	Cys	Pro	Pro	Ser	Phe	His	Gly	Pro	Thr	Cys	Trp	165	170	175	
Gln	Asp	Val	Asn	Glu	Cys	Gly	Gln	Lys	Pro	Arg	Leu	Cys	Arg	His	Gly	180	185	190	
Gly	Thr	Cys	His	Asn	Glu	Val	Gly	Ser	Tyr	Arg	Cys	Val	Cys	Arg	Ala	195	200	205	
Thr	His	Thr	Gly	Pro	Asn	Cys	Glu	Trp	Pro	Tyr	Val	Pro	Cys	Ser	Pro	210	215	220	
Ser	Pro	Cys	Gln	Asn	Gly	Gly	Thr	Cys	Arg	Pro	Thr	Gly	Asp	Val	Thr	225	230	235	240
His	Glu	Cys	Ala	Cys	Leu	Pro	Gly	Phe	Thr	Gly	Gln	Asn	Cys	Glu	Glu	245	250	255	
Asn	Ile	Asp	Asp	Cys	Pro	Gly	Asn	Asn	Cys	Lys	Asn	Gly	Gly	Ala	Cys	260	265	270	
Val	Asp	Gly	Val	Asn	Thr	Tyr	Asn	Cys	Pro	Cys	Pro	Pro	Glu	Trp	Thr	275	280	285	
Gly	Gln	Tyr	Cys	Thr	Glu	Asp	Val	Asp	Glu	Cys	Gln	Leu	Met	Pro	Asn	290	295	300	
Ala	Cys	Gln	Asn	Gly	Gly	Thr	Cys	His	Asn	Thr	His	Gly	Gly	Tyr	Asn	305	310	315	320

Cys	Val	Cys	Val	Asn	Gly	Trp	Thr	Gly	Glu	Asp	Cys	Ser	Glu	Asn	Ile	
				325					330					335		
Asp	Asp	Cys	Ala	Ser	Ala	Ala	Cys	Phe	His	Gly	Ala	Thr	Cys	His	Asp	
			340					345					350			
Arg	Val	Ala	Ser	Phe	Tyr	Cys	Glu	Cys	Pro	His	Gly	Arg	Thr	Gly	Leu	
		355					360					365				
Leu	Cys	His	Leu	Asn	Asp	Ala	Cys	Ile	Ser	Asn	Pro	Cys	Asn	Glu	Gly	
	370					375					380					
Ser	Asn	Cys	Asp	Thr	Asn	Pro	Val	Asn	Gly	Lys	Ala	Ile	Cys	Thr	Cys	
385					390					395				400		
Pro	Ser	Gly	Tyr	Thr	Gly	Pro	Ala	Cys	Ser	Gln	Asp	Val	Asp	Glu	Cys	
			405						410					415		
Ser	Leu	Gly	Ala	Asn	Pro	Cys	Glu	His	Ala	Gly	Lys	Cys	Ile	Asn	Thr	
			420				425						430			
Leu	Gly	Ser	Phe	Glu	Cys	Gln	Cys	Leu	Gln	Gly	Tyr	Thr	Gly	Pro	Arg	
	435					440						445				
Cys	Glu	Ile	Asp	Val	Asn	Glu	Cys	Val	Ser	Asn	Pro	Cys	Gln	Asn	Asp	
	450					455					460					
Ala	Thr	Cys	Leu	Asp	Gln	Ile	Gly	Glu	Phe	Gln	Cys	Met	Cys	Met	Pro	
465					470					475					480	
Gly	Tyr	Glu	Gly	Val	His	Cys	Glu	Val	Asn	Thr	Asp	Glu	Cys	Ala	Ser	
				485					490					495		
Ser	Pro	Cys	Leu	His	Asn	Gly	Arg	Cys	Leu	Asp	Lys	Ile	Asn	Glu	Phe	
			500					505					510			
Gln	Cys	Ala	Thr	Pro	Thr	Gly	Phe	Thr	Gly	His	Leu	Cys	Gln	Thr	Asp	
			515				520					525				
Val	Asp	Glu	Cys	Ala	Ser	Thr	Pro	Cys	Lys	Asn	Gly	Ala	Lys	Cys	Leu	
	530					535					540					
Asp	Gly	Pro	Asn	Thr	Tyr	Thr	Cys	Val	Cys	Thr	Glu	Gly	Tyr	Thr	Gly	
545					550					555					560	
Thr	His	Cys	Glu	Val	Asp	Ile	Asp	Glu	Cys	Asp	Pro	Asp	Pro	Cys	His	
				565					570					575		
Tyr	Gly	Ser	Cys	Lys	Asp	Gly	Val	Ala	Thr	Phe	Thr	Cys	Leu	Cys	Arg	
			580					585					590			
Pro	Gly	Tyr	Thr	Gly	His	His	Cys	Glu	Thr	Asn	Ile	Asn	Glu	Cys	Ser	
		595				600						605				
Ser	Gln	Pro	Cys	Arg	Leu	Trp	Gly	Thr	Cys	Gln	Asp	Pro	Asp	Asn	Ala	
	610					615					620					
Tyr	Leu	Cys	Phe	Cys	Leu	Lys	Gly	Thr	Thr	Gly	Pro	Asn	Cys	Glu	Ile	
625					630					635				640		
Asn	Leu	Asp	Asp	Cys	Ala	Ser	Ser	Pro	Cys	Asp	Ser	Gly	Thr	Cys	Leu	
				645					650					655		
Asp	Lys	Ile	Asp	Gly	Tyr	Glu	Cys	Ala	Cys	Glu	Pro	Gly	Tyr	Thr	Gly	
			660					665					670			
Ser	Met	Cys	Asn	Ser	Asn	Ile	Asp	Glu	Cys	Ala	Gly	Asn	Pro	Cys	His	
		675					680					685				
Asn	Gly	Gly	Thr	Cys	Glu	Asp	Gly	Ile	Asn	Gly	Phe	Thr	Cys	Arg	Cys	
	690					695					700					
Pro	Glu	Gly	Tyr	His	Asp	Pro	Thr	Cys	Leu	Ser	Glu	Val	Asn	Glu	Cys	
705					710					715				720		
Asn	Ser	Asn	Pro	Cys	Val	His	Gly	Ala	Cys	Trp	Asp	Ser	Leu	Asn	Gly	
				725					730					735		
Tyr	Lys	Cys	Asp	Cys	Asp	Pro	Gly	Trp	Ser	Gly	Thr	Asn	Cys	Asp	Ile	
			740					745					750			
Asn	Asn	Asn	Glu	Cys	Glu	Ser	Asn	Pro	Cys	Val	Asn	Gly	Gly	Thr	Cys	
		755					760					765				
Lys	Asp	Met	Thr	Ser	Gly	Ile	Val	Cys	Thr	Cys	Trp	Glu	Gly	Phe	Ser	



770		775		780
Gly Pro Asn Cys Gln Thr Asn Ile Asn Glu Cys Ala Ser Asn Pro Cys				
785		790		795
Leu Asn Lys Gly Thr Cys Ile Asp Asp Val Ala Gly Tyr Lys Cys Asn				800
		805		810
Cys Leu Leu Pro Tyr Thr Gly Ala Thr Cys Glu Val Val Leu Ala Pro				815
		820		825
Cys Ala Pro Ser Pro Cys Arg Asn Gly Gly Glu Cys Arg Gln Ser Glu				830
		835		840
Asp Tyr Glu Ser Phe Ser Cys Val Cys Pro Thr Ala Gly Ala Lys Gly				845
		850		855
Gln Thr Cys Glu Val Asp Ile Asn Glu Cys Val Leu Ser Pro Cys Trp				860
805		870		875
His Gly Ala Ser Cys Gln Asn Thr His Gly Xaa Tyr Arg Cys His Cys				880
		885		890
Gln Ala Gly Tyr Ser Gly Arg Asn Cys Glu Thr Asp Ile Asp Asp Cys				895
		900		905
Trp Pro Asn Pro Cys His Asn Gly Gly Ser Cys Thr Asp Gly Ile Asn				910
		915		920
Thr Ala Phe Cys Asp Cys Leu Pro Gly Phe Trp Gly Thr Phe Cys Glu				925
		930		935
Glu Asp Ile Asn Glu Cys Ala Ser Asp Pro Cys Arg Asn Gly Ala Asn				940
		945		950
Cys Thr Asp Cys Val Asp Ser Tyr Thr Cys Thr Cys Pro Ala Gly Phe				955
		955		960
Ser Gly Ile His Cys Glu Asn Asn Thr Pro Asp Cys Thr Glu Ser Ser				965
		970		975
Cys Phe Asn Gly Gly Thr Cys Val Asp Gly Ile Asn Ser Phe Thr Cys				980
		980		985
Leu Cys Pro Pro Gly Phe Thr Gly Ser Tyr Cys Gln His Val Val Asn				990
		995		1000
Glu Cys Asp Ser Arg Pro Cys Leu Leu Gly Gly Thr Cys Gln Asp Gly				1005
		1010		1015
Arg Gly Leu His Arg Cys Thr Cys Pro Gln Gly Tyr Thr Gly Pro Asn				1020
		1025		1030
Cys Gln Asn Leu Val His Trp Cys Asp Ser Ser Pro Cys Lys Asn Gly				1035
		1040		1045
Gly Lys Cys Trp Gln Thr His Thr Gln Tyr Arg Cys Glu Cys Pro Ser				1050
		1055		1060
Gly Trp Thr Gly Leu Tyr Cys Asp Val Pro Ser Val Ser Cys Glu Val				1065
		1070		1075
Ala Ala Gln Arg Gln Gly Val Asp Val Ala Arg Leu Cys Gln His Gly				1080
		1085		1090
Gly Leu Cys Val Asp Ala Gly Asn Thr His His Cys Arg Cys Gln Ala				1095
		1100		1105
Gly Tyr Thr Gly Ser Tyr Cys Glu Asp Leu Val Asp Glu Cys Ser Pro				1110
		1115		1120
Ser Pro Cys Gln Asn Gly Ala Thr Cys Thr Asp Tyr Leu Gly Gly Tyr				1125
		1130		1135
Ser Cys Lys Cys Val Ala Gly Tyr His Gly Val Asn Cys Ser Glu Glu				1140
		1145		1150
Ile Asp Glu Cys Leu Ser His Pro Cys Gln Asn Gly Gly Thr Cys Leu				1155
		1160		1165
Asp Leu Pro Asn Thr Tyr Lys Cys Ser Cys Pro Trp Gly Thr Gln Gly				1170
		1175		1180
Val His Cys Glu Ile Asn Val Asp Asp Cys Asn Pro Pro Val Asp Pro				1185
		1190		1195
		1200		1205
		1210		1215
		1220		1225
		1230		

→ PLS.  
 Explain  
 'Xaa' location  
 See pg-11  
 for Error  
 Explanation

Val Ser Trp Ser Pro Lys Cys Phe Asn Asn Gly Thr Cys Val Asp Gln  
 1235 1240 1245  
 Val Gly Gly Tyr Ser Cys Thr Cys Pro Pro Gly Phe Val Gly Glu Arg  
 1250 1255 1260  
 Cys Glu Gly Asp Val Asn Glu Cys Leu Ser Asn Pro Cys Asp Ala Arg  
 1265 1270 1275 1280  
 Gly Thr Gln Asn Cys Val Gln Arg Val Asn Asp Phe His Cys Glu Cys  
 1285 1290 1295  
 Arg Ala Gly His Thr Gly Arg Arg Cys Glu Ser Val Ile Asn Gly Cys  
 1300 1305 1310  
 Lys Gly Lys Pro Cys Lys Asn Gly Gly Thr Cys Ala Val Ala Ser Asn  
 1315 1320 1325  
 Thr Ala Arg Gly Phe Ile Cys Lys Cys Pro Ala Gly Phe Glu Gly Ala  
 1330 1335 1340  
 Thr Cys Glu Asn Asp Ala Arg Thr Cys Gly Ser Leu Arg Cys Leu Asn  
 1345 1350 1355 1360  
 Gly Gly Thr Cys Ile Ser Gly Pro Arg Ser Pro Thr Cys Leu Cys Leu  
 1365 1370 1375  
 Gly Pro Phe Thr Gly Pro Glu Cys Gln Phe Pro Ala Ser Ser Pro Cys  
 1380 1385 1390  
 Leu Gly Gly Asn Pro Cys Tyr Asn Gln Gly Thr Cys Glu Pro Thr Ser  
 1395 1400 1405  
 Glu Ser Pro Phe Tyr Arg Cys Leu Cys Pro Ala Lys Phe Asn Gly Leu  
 1410 1415 1420  
 Leu Cys Phe Ile Leu Asp Tyr Ser Phe Gly Gly Gly Ala Gly Arg Asp Val  
 1425 1430 1435 1440  
 Ile Pro Pro Pro Leu Ile Glu Glu Ala Cys Glu Leu Pro Glu Cys Gln  
 1445 1450 1455  
 Glu Asp Ala Gly Asn Lys Val Cys Ser Leu Gln Cys Asn Asn His Ala  
 1460 1465 1470  
 Cys Gly Trp Asp Gly Gly Asp Cys Ser Leu Asn Phe Asn Asp Pro Trp  
 1475 1480 1485  
 Lys Asn Cys Thr Gln Ser Leu Gln Cys Trp Lys Tyr Phe Ser Asp Gly  
 1490 1495 1500  
 His Cys Asp Ser Gln Cys Asn Ser Ala Gly Cys Leu Phe Asp Gly Phe  
 1505 1510 1515 1520  
 Asp Cys Gln Arg Ala Glu Gly Gln Cys Asn Pro Leu Tyr Asp Gln Tyr  
 1525 1530 1535  
 Cys Lys Asp His Phe Ser Asp Gly His Cys Asp Gln Gly Cys Asn Ser  
 1540 1545 1550  
 Ala Glu Cys Glu Trp Asp Gly Leu Asp Cys Ala Glu His Val Pro Glu  
 1555 1560 1565  
 Arg Leu Ala Ala Gly Thr Leu Val Val Val Val Leu Met Pro Pro Glu  
 1570 1575 1580  
 Gln Leu Arg Asn Ser Ser Phe His Phe Leu Trp Glu Leu Ser Arg Val  
 1585 1590 1595 1600  
 Leu His Thr Asn Val Phe Lys Arg Asp Ala His Gly Gln Gln Met  
 1605 1610 1615  
 Ile Phe Pro Tyr Tyr Gly Arg Glu Glu Glu Leu Arg Lys His Pro Ile  
 1620 1625 1630  
 Lys Arg Ala Ala Glu Gly Trp Ala Ala Pro Asp Ala Leu Leu Gly Gln  
 1635 1640 1645  
 Val Lys Ala Ser Leu Leu Pro Gly Gly Ser Glu Gly Gly Trp Trp Trp  
 1650 1655 1660  
 Arg Glu Leu Asp Pro Met Asp Val Arg Gly Ser Ile Val Tyr Leu Glu  
 1665 1670 1675 1680  
 Ile Asp Asn Trp Gln Cys Val Gln Ala Ser Ser Gln Cys Phe Gln Ser

			1685				1690				1695
Ala	Thr	Asp	Val	Ala	Ala	Phe	Leu	Gly	Ala	Leu	Ala
			1700								1710
Leu	Asn	Ile	Pro	Tyr	Lys	Ile	Glu	Ala	Val	Gln	Ser
			1715								1725
Pro	Pro	Pro	Pro	Ala	Gln	Leu	His	Phe	Met	Tyr	Val
			1730								1740
Phe	Val	Leu	Leu	Phe	Phe	Val	Gly	Cys	Gly	Val	Leu
			1745								1755
Arg	Trp	Xaa	Gln	His	Gly	Gln	Leu	Trp	Phe	Pro	Glu
			1765								1775
Ser	Glu	Ala	Ser	Lys	Lys	Lys	Trp	Trp	Glu	Xaa	Leu
			1780								1790
Val	Gly	Leu	Lys	Pro	Leu	Lys	Asn	Ala	Ser	Asp	Gly
			1795								1805

→ Same Error ←

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/781,059

DATE: 06/16/2006  
TIME: 12:32:00

Input Set : E:\7326-132.TXT  
Output Set: N:\CRF4\06162006\J781059.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Error Explanation

Seq#:2; Xaa Pos. 891,1763,1787

## VERIFICATION SUMMARY

DATE: 06/16/2006

PATENT APPLICATION: US/10/781,059

TIME: 12:32:00

Input Set : E:\7326-132.TXT

Output Set: N:\CRF4\06162006\J781059.raw

L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:880  
L:585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:1760  
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:1776